

ABSTRACT OF THE DISCLOSURE

There is provided a valve opening and closing control device (10, 110, 210, 300, 410) of a type making use of a motor (12, 320), in which device the driving performance of the motor is enhanced and heat generated by constituent elements is restricted. A bridge circuit (110, 212, 382, 411) of a motor driving circuit (100, 200, 370, 400) comprises three rows of arms (113u, 113v, 113w) comprising two switching elements (111a, 111b) connected in series to each other and two diodes (112a, 112b) connected in parallel to corresponding switching elements. The respective arms are connected in parallel to an electric source (120, 213, 383, 412), and motor windings (22u, 22w, 22v) are connected to points of interconnection of the switching elements on the respective arms. After putting the respective switching elements of the arms in an ON state to carry an electric current to the windings, a control circuit (130, 214, 385) causes the switching element in an ON state to be put as an electricity introduction stoppage element (111b) in an OFF state and causes the switching element of the same arm as that, on which the electricity introduction stoppage element is disposed, to be put in an ON state.